

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Kiyoshi Iseki, *et al.*

SERIAL NUMBER: 09/500,132

FILED: February 8, 2000

FOR: FUNCTIONAL ROLL FILM AND VACUUM EVAPORATION
APPARATUS CAPABLE OF PRODUCING THE
FUNCTIONAL ROLL FILM

GROUP ART UNIT: 1772

EXAMINER: Alicia A. CHEVALIER

Docket No. : 11197/1

Mail Stop Amendment
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

SIR:

In response to the Notice of Non-Compliant Amendment dated July 25, 2007, the following corrected sections are resubmitted:

Amendments to the Claims begin on page 2.

Remarks begin on page 5.

AMENDMENTS TO THE CLAIMS:

A full listing of the claims is as follows:

1. (Previously presented) A functional roll film comprising:
a transparent plastic film having gas barrier properties, and having an inorganic oxide layer on at least one surface,
wherein one roll unit of the plastic film has a width of at least 400 mm and a length of at least 4,000 m,
wherein, when from said one roll unit of the plastic film, a portion of the film having a width of at least 400 mm and a length of at least 4,000 m is cut, the controlled maximum thickness of the inorganic oxide layer of the portion of the film is equal to or less than 1.5 times the controlled minimum thickness of the inorganic oxide layer of the portion of the film among layer thickness values measured along the length and the width in the portion of the film.
2. (Currently amended) A functional roll film according to claim 1, wherein said inorganic oxide layer comprises a composite oxide having at least two components, wherein the difference between a maximum wt% and a minimum ~~weight~~ wt% of one component of the composite oxide in said one roll unit of the plastic film is within 20 wt%.
3. (Previously presented) A functional roll film according to claim 1, wherein said one roll unit of the plastic film has a width of at least 1,000 mm and a length of at least 15,000 m.
- 4-19. (Canceled).
20. (Withdrawn) A process for producing a functional roll film, comprising the following steps:
providing a plastic film, having formed an inorganic oxide layer on at least one surface of the plastic film, said plastic film having transparency and gas barrier properties and being windable;

obtaining data of the thickness of the inorganic oxide layer formed on the plastic film running in a vacuum chamber in a transverse (TD) and a longitudinal (MD) direction of the plastic film by a plurality of X-ray measuring means disposed at predetermined distances from one another in the transverse direction of the plastic film, wherein the thickness measurement by the X-ray measuring means is carried out continuously; and

controlling by a control means a heating means for heating and evaporating an evaporation material for the inorganic oxide layer based on said data of the thickness of the inorganic oxide layer, such that an evaporation rate of the evaporation material is controlled in both the transverse (TD) and the longitudinal direction (MD), so that the maximum thickness of said inorganic oxide layer is equal to or less than 1.5 times the minimum thickness, said maximum thickness being the thickness of the thickest portion and said minimum thickness being the thickness of the thinnest portion of the thickness measured in one roll unit.

21. (Previously presented) A functional roll film according to claim 2, wherein said one roll unit of the plastic film has a width of at least 1,000 mm and a length of at least 15,000 m.

22. (Previously presented) A functional roll film according to claim 1, wherein said one roll unit of the plastic film has a width of 400 to 1,000 mm and a length of 4,000 to 10,000 m.

23. (Previously presented) A functional roll film comprising:

a transparent plastic film having gas barrier properties, and having an inorganic oxide layer on at least one surface,

wherein one roll unit of the plastic film has a width of at least 400 mm and a length of at least 4,000 m,

wherein, when from said one roll unit of the plastic film, a portion of the film having a width of at least 400 mm and a length of at least 4,000 m is cut, the ratio of a controlled maximum thickness of the inorganic oxide layer of the portion of the film to a controlled minimum thickness of the inorganic oxide layer of the portion of the film is equal to or less than 1.5 along the length and the width in the portion of the film,

wherein static electricity of said plastic film having said inorganic oxide layer is in a range from -10 kV to +10 kV.

REMARKS

In claim 2, a strikethrough is used to indicate the deletions. The Commissioner is authorized to charge all required fees, fees under § 1.17, or all required extension of time fees, or to credit any overpayment to Deposit Account No. 11-0600 (Kenyon & Kenyon LLP).

Respectfully submitted,

Date: 16 August 2007

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